

#### STATE OF TENNESSEE

## Department of Commerce and Insurance BOARD OF EXAMINERS FOR LAND SURVEYORS 500 James Robertson Parkway, 3rd Floor Nashville, TN 37243-1146 615-741-3611

Fax: 615-532-9410

www.state.tn.us/commerce/boards/surveyors/index

**TO:** All Tennessee Land Surveyor Applicants

**FROM:** Tennessee Board of Examiners for Land Surveyors

**RE**: TCA 62-18-109

Category A, B, C Educational Courses

In order to assist applicants with the process of obtaining the educational surveying requirements toward the application process for the state of Tennessee, the attached pre-approved lists are offered for your convenience.

This list is preliminary and will be under continuous revision as the Board receives appropriate information. The Administrative Director of the Board and the Department website personnel will be responsible for the website update.

If an individual is applying for licensure and has already obtained their four year baccalaureate degree in Land Surveying (*Category A*), then the individual will have already taken all required courses and the attached listings will not apply to them.

An individual applying under *Category B* will be required to submit 24 semester hours of courses relating directly to surveying. Acceptable courses may have been taken while pursuing your four year degree or you may need to select courses from List I or II. A minimum of 18 hours must be equivalent to courses shown in List I and the remainder from List II or III.

An individual applying under *Category C* will be required to submit 36 hours of courses relating directly to surveying. Acceptable courses may have been taken while pursuing your four year degree or you may need to select a total of 36 hours from List I, II, or III. A minimum of 18 hours must be equivalent to courses shown in List I, six hours from List II and the remaining 12 hours from List I, II or III.

An additional list attached are the institutions where the board has pre-approved courses relating to surveying: East Tennessee State University, Johnson City, TN; Pellissippi State Community College, Knoxville, TN; Austin Peay State University, Clarksville, TN; Columbia State Community College, Columbia, TN; University of Tennessee – Martin, Martin, TN; University of Memphis, Memphis, TN; Murray State University, Murray, KY; Nashville State Community College, Nashville, TN; Jackson State Community College, Jackson, TN; Southwest Tennessee Community College, Jackson, TN; Chattanooga State Community College, Chattanooga, TN; Louisiana Technical College.

### SURVEYING AND GEOMETRICS

#### THIS LIST IS SUBJECT TO CHANGE

(Revised November 17, 2006)

#### (I) A Minimum of 18 Hours\*

Advanced Surveying Principles

Control Surveys

Land Boundary/Real Estate Law

Land Subdivision and Mapping

Positioning with GPS Land Surveys

Land Survey Systems

Survey Measurement and Analysis

Survey Projects

Hydrographic Surveying

Mine Surveying

Map Projections and State Planes

Cartographic Mathematics

Geodetic Science

Cartography (Level 300 or above)

Surveying and Lab (Level 300 or above)

Site Planning & Development

Road Design/Route Survey

Legal Aspects of Surveying

\*The Board recommends that these courses be 300 and 400 level courses.

### (II) A Minimum of 6 Hours

Digital Image & Base Maps

Automated Surveying & Mapping (CAD)

Hydrology

Photogrammetry

Surveying Measurement Fundamentals

Advanced Surveying Math

**Engineering and Construction Surveys** 

Construction Surveys

Field Mapping

Surveying I and II

Cartography I and II

Hydraulics and Water Systems

Dendrology

Remote Sensing

Advanced AutoCAD & Civil Drawing

(III) Computer Programming

**Surveying Graphics** 

**Technical Communication** 

Soil and Water Engineering/Earth Science

Professional Ethics

Resource Management/GIS

**Statistics** 

Trigonometry

Calculus

Geometry

**Physics** 

Cost Estimating

Physical Geography

College Algebra

Highway Engineering Precision Tech Ag&NRM GIS/GPS

Advance GIS (Level 300 or Above)

Surveying and Soil & Water Engineering

Engineering CAD Drawing Geology for Engineers

# PRE-APPROVED EDUCATION HOURS FOR APPLICATION

THIS LIST IS SUBJECT TO CHANGE

SUBJECT/COURSE/COURSE TITLE	LIST	HOURS	INSTITUTION
SURV 2038 Honors Professional Ethics		3	East Tennessee State University
SURV 2550 Surveying Measurement			
Fundamentals	II	4	East Tennessee State University
SURV 2560 Surveying Graphics	III	4	East Tennessee State University
SURV 3030 Technical Communications	III	3	East Tennessee State University
SURV 3048 Honor Methods of Research		3	East Tennessee State University
SURV 3510 Engineering and Construction			, and the second
Surveys	11	4	East Tennessee State University
SURV 3520 Land Survey Systems	ı	2	East Tennessee State University
SURV 3530 Survey Measurement and			j
Computational Analysis	I	4	East Tennessee State University
SURV 3540 Surveying Projects	ı	3	East Tennessee State University
SURV 3550 Advanced Surveying Mathematics	II		, and the second
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SURV 3560 Geodetic Science	ı	4	East Tennessee State University
SURV 4517/5517 Photogrammetry	ll l	4	East Tennessee State University
SURV 4520 Survey Science Topics		3	East Tennessee State University
SURV 4537/5537 Land Boundary Location	ı	4	East Tennessee State University
SURV4547/5547 Land Subdivision and			, ,
Platting	ı	4	East Tennessee State University
SURV 4550 Automated Surveying and Mapping	ll	3	East Tennessee State University
SURV 4567/5567 Positioning with GPS	Ī	3	East Tennessee State University
SURV 4617/5617 Digital Imagery Processing	il	3	East Tennessee State University
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AGET 220 Surveying and Soil & Water			
Engineering	II	3	University of Tennessee @ Martin
AGET 482 Precision Tech Ag&NRM GIS/GPS	I	3	University of Tennessee @ Martin
CSCI 211 Introduction to Computer			, J
Programming	III	3	University of Tennessee @ Martin
CSCI 230 FORTRAN Programming	III	3	University of Tennessee @ Martin
CSCI 231 Computer Programming for Engineers	III	3	University of Tennessee @ Martin
ENGR 101 Engineering Graphics	III	3	University of Tennessee @ Martin
ENGR 311 Engineering Applications of		_	
Probability and Statistics	III	3	University of Tennessee @ Martin
ENGR 350 Elementary Surveying	!	3	University of Tennessee @ Martin
ENGR 353 Hydraulics and Hydrology	ll	3	University of Tennessee @ Martin
GEOG 201 Introduction to Physical Geography	<u>;;</u>	3	University of Tennessee @ Martin
GEOG 310 Principles of GIS		3	University of Tennessee @ Martin
GEOG 364 Introduction to Remote Sensing	il i	3	University of Tennessee @ Martin
GEOG 410 Geographic Information Systems:		<del>                                     </del>	
Modeling & Application	ı	3	University of Tennessee @ Martin
GEOG 471 Cartography	i I	3	University of Tennessee @ Martin
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MATH 140 College Algebra and Functions	111	3	University of Tennesses @ Mertin
MATH 160 Coloubs for Pusinger and Life	III	3	University of Tennessee @ Martin
MATH 160 Calculus for Business and Life	111	2	University of Tennesses & Martin
Science	<u>     </u>	3	University of Tennessee @ Martin
MATH 210 Elementary Statistics and Probability	<u>                                      </u>	3	University of Tennessee @ Martin
MATH 251 Calculus I	<u>     </u>	4	University of Tennessee @ Martin
MATH 252 Calculus II	<u>     </u>	4	University of Tennessee @ Martin
MATH 320 Multivariate Calculus	<u> </u>	4	University of Tennessee @ Martin
PLSC 341 Dendrology & Forest Ecology	<u>                                     </u>	3	University of Tennessee @ Martin
PHIL 160 Introduction to Ethics	III	3	University of Tennessee @ Martin
PHSY 211 College Physics	Ш	4	University of Tennessee @ Martin
PHSY 212 College Physics	III	4	University of Tennessee @ Martin
PHSY 220 University Physics	III	4	University of Tennessee @ Martin
PHSY 221 University Physics	Ш	4	University of Tennessee @ Martin
PHSY 322 University Physics	III	3	University of Tennessee @ Martin
PHSY 323 University Physics	III	3	University of Tennessee @ Martin
IET 101-02 Intro to CAD		3	Jackson State Community College
GSC 305 Map Analysis		3	Murray State University
GSC 522 Cartography II	[]	3	Murray State University
CET 370 Intermediate Surveying	l	3	Murray State University
IET 571 Problems in Industrial and Engineer			
Technology		3	Murray State University
ET 486 Boundary Surveying II		3	Murray State University
IET 380 Professional Internship		3	Murray State University
ENG 352 Transportation Engineering		3	Murray State University
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CCET 1010101 Surveying I and Lab	ll	4	Southwest Tennessee Community College
MATH 1740101 Algebra and Trig I	III	3	Southwest Tennessee Community College
MEET 1210101 CAD Design I and Lab		4	Southwest Tennessee Community College
CCET 1134151 Civil Drafting and Lab		4	Southwest Tennessee Community College
CCET 2020151 Surveying II and Lab	ll	4	Southwest Tennessee Community College
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GEOG 1101 Intro Earth SC W/C		4	University of Memphis
MATH 1211 College Algebra	III	3	University of Memphis
MATH 1312 Elementary Calculus	III	3	University of Memphis
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MAT 113 College Trigonometry	III	3	Columbia State Community College
ERG 101 Engineering Graphics	•••	3	Columbia State Community College
PHY 211 Physics I	III	4	Columbia State Community College
PHY 255 Engineering Statistics	 	3	Columbia State Community College
PHY 212 Physics II		4	Columbia State Community College
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CEE 3020 Surveying	l I	3	Tennessee Technological University
GEOL 3210 Geology for Engineers	<u>'</u> 	3	Tennessee Technological University
CEE 4920 Professionalism and Ethics	III	1	
		-	Tennessee Technological University
IME 3100 Engineering Economy	<u>     </u>	3	Tennessee Technological University
CEE4640 Highway Engineering	<u> </u>	3	Tennessee Technological University
ISE 3200 Engineering Statistics	<u>     </u>	3	Tennessee Technological University
ENGR 1110 Engineering Graphics	III	2	Tennessee Technological University

ENGR 1210 Intro to Engineering	III	1	Tennessee Technological University
MATH 1910 Calculus I	III	5	Tennessee Technological University
CEE 3420 Hydraulics	II	3	Tennessee Technological University
CEE 4420 Engineering Hydrology	II	3	Tennessee Technological University
AGHT 3450 Dendrology	II	3	Tennessee Technological University
GEOG 4210 Cartography	1	3	Tennessee Technological University
GEOG 4210 Cartography	•		Termessee recrimological eniversity
MATH 1720-23 Trigonometry	III	3	Austin Peay State University
GEOG 3920 Field Mapping and the Global			
Positioning System		3	Austin Peay State University
GEOG 3250 Geographic Information Systems		3	Austin Peay State University
GEOG 4160 Modeling Dynamic Systems and			
GIS		?	Austin Peay State University
GEOG 4270 Watershed Management		4	Austin Peay State University
PHYS 2010 College Physics	III	5	Austin Peay State University
GEOG 1010 Physical Geography	III	3	Austin Peay State University
GEOG 3150 Maps and Their Interpretation		3	Austin Peay State University
MATH 1910-101 Calculus and Anal Geom		4	Nashville State Community College
PHYS 2010-103 Non-Calc Based Physics		4	Nashville State Community College
CAD 1200-100 Computed Aided Drafting		3	Nashville State Community College
CIT 2131 Surveying I	П	4	Nashville State Community College
CIT 2311 Surveying II	П	4	Nashville State Community College
CIT 2301 Hydrology and Site Design		3	Nashville State Community College
CIT 2200 Hydraulics & Water Systems		4	Nashville State Community College
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CIVL 1110 Civil Math I		3	Louisiana Technical College
CIVL 1120 Surveying I Lecture	II	3	Louisiana Technical College
CIVL 1121 Surveying I Lab	П	1	Louisiana Technical College
CIVL 1210 Civil Math II		3	Louisiana Technical College
CIVL 1220 Surveying II Lecture	II	3	Louisiana Technical College
CIVL 1221 Surveying II Lab	II	1	Louisiana Technical College
CIVL 1320 Surveying III Lecture		3	Louisiana Technical College
CIVL 1321 Surveying III Lab		1	Louisiana Technical College
CIVL 1340 Soil Mechanics Lecture		2	Louisiana Technical College
CIVL 1341 Soil Mechanics Lab		1	Louisiana Technical College
CIVL 1410 Surveying IV Lecture		2	Louisiana Technical College
CIVL 1411 Surveying IV Lab		1	Louisiana Technical College
CIVL 1420 Map Study		2	Louisiana Technical College
CIVL 1430 Legal Principles of Surveying		3	Louisiana Technical College
CIVL 1441 Computer Aided Drafting		2	Louisiana Technical College
CIVL 2511 Surveying Technical Practice I		2	Louisiana Technical College
CPTR 1000 Introduction to Computers		2	Louisiana Technical College
CIVL 2530 Applied Surveying Mathematics		3	Louisiana Technical College
CIVL 2551 Computer Software			
(Surveying Applications)		2	Louisiana Technical College
CIVL 2611 Surveying Technical Practice II		2	Louisiana Technical College
CIVL 2620 U.S. Public Land Surveys		3	Louisiana Technical College
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CIVL 2630 Highway Plan Reading		2	Louisiana Technical College

CIVL 2991 Special Projects I		
(Surveying Only)	1	Louisiana Technical College
CIVL 2993 Special Projects II		
(Surveying Only)	2	Louisiana Technical College
CIVL 2995 Special Projects III		
(Surveying Only)	3	Louisiana Technical College
CIVL 2996 Special Projects IV		
(Surveying Only)	3	Louisiana Technical College